

REMARKS

Claims 1-49 are pending in the application.

Claims 1, 17, 18, 33-37, 47 and 49 have been rejected.

Claims 2-16, 19-32, 38-46 and 48 are objected to.

Claims 1-49 remain pending in the application.

I. **REJECTION UNDER 35 U.S.C. § 102**

Claims 1, 17, 18, 33, and 49 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application No. 2003/0027540 to *Da Torre, et al.*, hereinafter “Da Torre”. The rejection is respectfully traversed.

The Applicants respectfully submit that Da Torre fails to show each and every element of Claim 1. Specifically, Claim 1 recites, “a multi-antenna module, for combining said multi-channel baseband signals outputted from said plurality of groups of radio frequency signal processing modules into single-channel baseband signals according to control information received one-off when said multi-antenna module enables a multi-antenna baseband processing.”

The Office Action appears to suggest that Da Torre combines baseband signals according to control information received **one-off when said multi-antenna module enables a multi-antenna baseband processing**. However, the abstract of Da Torre states, “The combiner controller, coupled to the multi-antenna combiner, dynamically generates control parameters associated with each of the received signals to control combiner modification of the signals in generating the composite signal based, at least in part, on one or more quality values generated during baseband processing of **previous composite signal(s)**.” Similarly, paragraph [0030] of Da Torre also states, “In accordance with one aspect of the present invention, the modification of the one or more operational characteristics of the received signals is based, at least in part, on signal quality parameter(s) generated during baseband processing **of previously received signals**.” (Emphasis added by the Applicants.)

In distinct contrast, pages 17-18 of the Applicants' application describe a blind single beam working mode as follows:

When a mobile terminal is just powered on or entering a new cell, it's required to search for pilot signals and establish cell synchronization first, usually called cell search stage. Before finishing cell search successfully, the mobile phone has no information of pilot signals and cell synchronization is not established either.

In this invention, when control information from the bus indicates the mobile terminal is at cell search stage, the MA module 206 in Fig. 3 is configured as blind single beam working mode, whose characteristic is: neither the pilot information, or the cell synchronization, is necessary.

When MA module 206 works in the mode of blind single beam, its synchronization module 301 and combiner module 304 are disabled under the control of controller 302, and only one spatial filter 303 is active, whose output is directly sent to pulse shaper 305.

In this case, the equivalent architecture of MA module 206 is shown in Fig. 4, wherein spatial filter 303 includes a plurality of multipliers 320, an adder 321 and a weight generating module 308. The multipliers 320 are used to multiply the input signals from the said each MF 300 by the corresponding channel parameters outputted from weight generating module 308. The adder 321 is used for summing signals outputted from the said each multipliers 320 and outputting the results to the said pulse shaper 305. The weight generating module 308 is used to perform corresponding processing algorithms to estimate channel parameters, according to signals from each MF 300.

The Applicants respectfully submit that signal quality parameters or quality values of Da Torre are generated during baseband processing of previously received signals not according to control information received one-off when said multi-antenna module enables a multi-antenna baseband processing as recited in Claim 1. Accordingly, the Applicants respectfully submit that Claim 1 is patentable over Da Torre.

Independent Claims 18 and 49 recite elements analogous to the novel elements emphasized above in traversing the rejection of Claim 1 and, therefore, also are patentable over Da Torre. Additionally, Claim 17 depends from Claim 1 and includes all the elements of Claim 1. As such, Claim 17 also is patentable over Da Torre.

Accordingly, the Applicants respectfully request the Examiner withdraw the § 102(e) rejection of Claims 1, 17, 33, and 49.

II. REJECTION UNDER 35 U.S.C. § 103

Claims 34-37 and 47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Da Torre in view of U.S. Patent Application No. 2003/0169720 to *Sebastian, et al.*, hereinafter “Sebastian”. The rejection is respectfully traversed.

The Applicants respectfully submit that the cited references fail to teach or suggest all the claim elements of independent Claim 34. Specifically, Claim 34 recites, “a plurality of spatial filters, each of the plurality of spatial filters setting its working modes according to received instruction, and processing multi-channel baseband signals according to received information related to spatial features of signals of each specific path to separate signals of said each specific path from mixed signals.”

The Office Action appears to suggest that Da Torre discloses processing multi-channel baseband signals according to received information related to spatial features of signals of each specific path to separate signals of said each specific path from mixed signals. However, as stated in paragraph [0030] of Da Torre cited earlier, the modification of the one or more operational characteristics of the received signals is based, at least in part, on signal quality parameter(s). The Applicants respectfully submit that signal quality parameters are not the same as spatial features of signals. Accordingly, the Applicants respectfully submit that Claim 34 is patentable over the cited references.

Independent Claim 36 recites elements analogous to the novel elements emphasized above in traversing the rejection of Claim 34 and, therefore, also is patentable over the cited references. Additionally, Claims 35 and 47 and Claim 37 depend from Claims 34 and 36, respectively, and include all the elements of their respective base claim. As such, Claims 35, 37 and 47 also are patentable over the cited references.

Accordingly, the Applicants respectfully request withdrawal of the § 103(a) rejection of Claims 34-37 and 47.

III. ALLOWABLE SUBJECT MATTER

The Office Action indicates that Claims 2-16, 19-32, 38-46, and 48 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for this indication of allowable subject matter, but elect not to rewrite Claims 2-16, 19-32, 38-46, and 48 at this time.

IV. CONCLUSION

As a result of the foregoing, the Applicants assert that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK CARTER, LLP

Date: Jan 15, 2010

Robert D. McCutcheon
Robert D. McCutcheon
Registration No. 38,717

P.O. Box 802432
Dallas, Texas 75380
(972) 628-3632 (direct dial)
(972) 628-3600 (main number)
(972) 628-3616 (fax)
E-mail: *rmccutcheon@munckcarter.com*